

I/WE claim:

1. A highly automated system for managing individual animals in a production environment comprising:

a transmitter attached, implanted or ingested on or by a particular animal which identifies the particular animal by a unique signal,

a measurement unit positioned in front of a consumption location comprising:

an antenna mounted to the unit that receives the unique signal from the transmitter;

a weighing device that measures partial body weight of animals while they consume substances,

an electronic signal transmitting and receiving device that acquires signals from the antenna and weighing device to send acquired signals to a computer and receive instructions from a computer;

an animal marking device that visually colors a particular animal while they consume substances,

a computer that acquires, assembles and analyzes data received from the measurement device and other sources and sends marking instructions to the measurement unit.

2. The system according to claim 1 comprising a plurality of measurement units in front of a single consumption location enabling:

a plurality of transmitter signals from the plurality of antennas to be sent to one electronic signal transmitting and receiving device,

a plurality of signals from a plurality of weighing devices positioned in front of one consumption location to be sent to one electronic signal transmitting and receiving device,

a plurality of measurement units to be powered from one conventional or solar powered source.

3. The system as set forth in claim 1, wherein multiple consumption locations are monitored and managed.

4. The system as set forth in claim 1, wherein the marking device can visually identify animals with at least one of a single, multiple colors and or an absence of color.

5. The system as set forth in claim 1, wherein the measurement unit incorporates neck guides that form an access port permitting solely the head of one animal to pass through the access port which optimally positions the animal on the weight platform and in the desired range of the antenna.

6. The system as set forth in claim 1, wherein an individual animal is identified and measured without substantially confining the animal from his pen mates.

7. The system as set forth in claim 1, wherein a transmitting device is affixed to the consumption location to identify a geographical location of the measurement units.

8. The system as set forth in claim 1, wherein the measurement units are portable:

- enabling movement to alternative geographical locations,
- allowing sharing of the units amongst locations,
- enabling maintenance of the measurement unit.

9. The system as set forth in claim 1, wherein the weight platform is sized to accommodate only the front legs of an animal.

10. The system as set forth in claim 1 whereby the weight platform can easily be separated from the measurement unit to enable cleaning.

11. The system as set forth in claim 1 further determining:

- weight gain and growth from partial weight signals received,
- full body weight from partial weight signals received using a modification factor,
- a more accurate modification factor by associating weight gathered by other weight measurement devices.

12. The system as set forth in claim 1, wherein the measurement unit is supported by two legs and incorporates an adjusting mechanism to raise or lower the unit in relationship to the mounting surface.

13. The system as set forth in claim 1, wherein the computer determines whether an animal has lost a transmitter or the transmitter has ceased to function.

14. The system as set forth in claim 1, wherein the computer determines an interval head count and inventory of all animals monitored by the system.

15. The system as set forth in claim 1, wherein the computer determines an animal's gain and growth at intervals.

16. The system as set forth in claim 1, wherein the computer determines consumption intake by measuring the increase in weight during an event in combination with duration of the event.

17. The system as set forth in claim 1, wherein the computer determines the state of an animal and its deviation or transition from this state.

18. The system as set forth in claim 1, wherein animals may be sorted or segregated in the production environment based on its determined state.

19. The system as set forth in claim 1, wherein the computer determines and recommends when an animal should be marketed.

20. The system as set forth in claim 1, wherein the computer determines when an animal should be treated and whether feed, feed additives, water, minerals, growth promoting substances or supplements should be given.